

Union Calendar No. 252

107TH CONGRESS
2D SESSION

H. R. 2051

[Report No. 107-422]

To provide for the establishment of regional plant genome and gene expression research and development centers.

IN THE HOUSE OF REPRESENTATIVES

JUNE 5, 2001

Mr. SMITH of Michigan introduced the following bill; which was referred to the Committee on Science

APRIL 30, 2002

Additional sponsor: Mrs. BONO

APRIL 30, 2002

Reported with amendments, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

[Strike out all after the enacting clause and insert the part printed in *italie*]

[For text of introduced bill, see copy of bill as introduced on June 5, 2001]

A BILL

To provide for the establishment of regional plant genome and gene expression research and development centers.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

1 **SECTION 1. CENTERS.**

2 The National Science Foundation is authorized to
3 make grants for the establishment of regional plant ge-
4 nome and gene expression research and development cen-
5 ters; the purpose of which shall be to—

6 (1) develop capabilities in basic plant genome
7 research;

8 (2) extend basic plant genomics research
9 through plant breeding programs and accelerate its
10 application to the development and testing of new
11 varieties of enhanced food crops and crops that can
12 be used as alternative energy sources;

13 (3) develop alternative uses of agricultural
14 crops; and

15 (4) serve as centers for scientific and safety in-
16 formation on plant genomics.

17 **SEC. 2. GRANT AWARDS.**

18 Grant awards under this Act shall be made through
19 an open, peer-reviewed competition. When making awards,
20 the National Science Foundation shall ensure that as
21 many different agronomic environments as possible are
22 represented.

23 **SEC. 3. MATCHING FUNDS.**

24 The National Science Foundation shall not provide
25 under this Act more than 50 percent of the cost of estab-
26 lishing any research and development center.

1 **SEC. 4. AUTHORIZATION OF APPROPRIATIONS.**

2 There are authorized to be appropriated to the Na-
 3 tional Science Foundation \$3,000,000 for fiscal year 2002
 4 and \$4,500,000 for fiscal year 2003 to carry out this Act.

5 **SECTION 1. DEFINITIONS.**

6 *In this Act—*

7 (1) *the term “Director” means the Director of the*
 8 *National Science Foundation;*

9 (2) *the term “institution of higher education”*
 10 *has the meaning given such term in section 101 of the*
 11 *Higher Education Act of 1965 (20 U.S.C. 1001); and*

12 (3) *the term “nonprofit organization” means a*
 13 *nonprofit research institute or a nonprofit association*
 14 *with experience and capability in plant biotechnology*
 15 *research as determined by the Director.*

16 **SEC. 2. MATCHING FUNDS.**

17 *The Director may establish matching fund require-*
 18 *ments for grantees to receive grants under this Act.*

19 **SEC. 3. PLANT GENOME AND GENE EXPRESSION RESEARCH**
 20 **CENTERS.**

21 (a) *IN GENERAL.—The Director shall award grants to*
 22 *consortia of institutions of higher education or nonprofit*
 23 *organizations (or both) to establish regional plant genome*
 24 *and gene expression research centers. Grants shall be*
 25 *awarded under this section on a merit-reviewed, competi-*
 26 *tive basis. When making awards, the Director shall, to the*

1 *extent practicable, ensure that the program created by this*
 2 *section examines as many different agricultural environ-*
 3 *ments as possible.*

4 *(b) PURPOSE.—The purpose of the centers established*
 5 *pursuant to subsection (a) shall be to conduct research in*
 6 *plant genomics and plant gene expression. A center’s activi-*
 7 *ties may include—*

8 *(1) basic plant genomics research and genomics*
 9 *applications, including those related to cultivation of*
 10 *crops in extreme environments and to cultivation of*
 11 *crops with reduced reliance on fertilizer;*

12 *(2) basic research that will contribute to the de-*
 13 *velopment or use of innovative plant-derived products;*

14 *(3) basic research on alternative uses for plants*
 15 *and plant materials, including the use of plants as*
 16 *renewable feedstock for alternative energy production*
 17 *and nonpetroleum-based industrial chemicals and*
 18 *precursors; and*

19 *(4) basic research and dissemination of informa-*
 20 *tion on the ecological and other consequences of ge-*
 21 *netically engineered plants.*

22 **SEC. 4. PARTNERSHIPS FOR PLANT BIOTECHNOLOGY IN**
 23 **THE DEVELOPING WORLD.**

24 *(a) IN GENERAL.—(1) The Director shall award*
 25 *grants to institutions of higher education, nonprofit organi-*

1 zations, or consortia of such entities to establish research
2 partnerships for supporting the development of plant bio-
3 technology targeted to the needs of the developing world. The
4 Director, by means of outreach, shall encourage inclusion
5 of Historically Black Colleges or Universities, Hispanic-
6 serving institutions, or tribal colleges or universities in con-
7 sortia that enter into such partnerships.

8 (2) In order to be eligible to receive a grant under this
9 section, an institution of higher education or eligible non-
10 profit organization (or consortium thereof) shall enter into
11 a partnership with one or more research institutions in one
12 or more developing nations and may also include for-profit
13 companies involved in plant biotechnology.

14 (3) Grants under this section shall be awarded on a
15 merit-reviewed competitive basis.

16 (b) *PURPOSE.*—Grants awarded under this section
17 shall be used for support of research in plant biotechnology
18 targeted to the needs of the developing world. Such activities
19 may include—

20 (1) basic genomic research on crops grown in the
21 developing world;

22 (2) basic research in plant biotechnology that
23 will advance and expedite the development of im-
24 proved cultivars, including those that are pest-resist-

1 *ant, produce increased yield, reduce the need for fer-*
 2 *tilizers, or increase tolerance to stress;*

3 *(3) basic research that could lead to the develop-*
 4 *ment of technologies to produce pharmaceutical com-*
 5 *pounds such as vaccines and medications in plants*
 6 *that can be grown in the developing world; and*

7 *(4) research on the impact of plant biotechnology*
 8 *on the social, political, economic, and environmental*
 9 *conditions in countries in the developing world.*

10 **SEC. 5. AUTHORIZATION OF APPROPRIATIONS.**

11 *There are authorized to be appropriated to the Na-*
 12 *tional Science Foundation \$9,000,000 for fiscal year 2002,*
 13 *\$13,500,000 for fiscal year 2003, and \$13,500,000 for fiscal*
 14 *year 2004 to carry out this Act.*

Amend the title so as to read: “A bill to authorize the National Science Foundation to establish regional centers for the purpose of plant genome and gene expression research and development and international research partnerships for the advancement of plant biotechnology in the developing world.”.

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